

Online Appendix for:
Do TJ policies cause backlash?
Evidence from street name changes in Spain

October 13, 2021

Contents

| | |
|--|-----------|
| A1 Francoist street names | 2 |
| A2 Descriptives | 4 |
| A3 DiD sample and treatment strength | 7 |
| A4 Descriptives on Francoist street name removals | 9 |
| A5 Comparing treated vs control and sample vs out-of-sample | 12 |
| A6 Cross-sectional analysis | 18 |
| A7 Robustness tests (difference-in-differences) | 23 |
| A8 First-difference models | 28 |
| A9 Timeline of elections in Spain | 30 |

A1 Francoist street names

We considered as Francoist the following street names. The starting point was the list published by the Madrid City Council in 2017, where they proposed a list of 52 street names to be removed, following a report by the Historical Memory Commission.¹ This list was expanded, manually selecting from the street names most commonly changed. Indeed, among all the changes between 2001 and 2020, the five most commonly removed street names were all key Francoist figures: 'Jose Antonio,' 'Calvo Sotelo,' 'General Mola,' 'Generalísimo,' and 'General Franco.' The full list:

18 de Julio; Alcalde Conde de Mayalde; Alcazar; Alcazar de Toledo; Alferez Provisional; Almirante Francisco Moreno; Angel del Alcazar; Arco de la Victoria; Arriba Espana; Aunos; Batalla de Belchite; Batalla del Ebro; Caidos; Caidos (de Los); Caidos (los); Caidos de la Division Azul; Caidos Por la Patria; Calvo Sotelo; Calvo Sotelo (de); Capita Cortes; Capitan Cortes; Capitan Cortes (del); Capitan Haya; Capitan Luna; Carlos Pinilla; Carlos Ruiz; Carrero Blanco; Caudillo; Caudillo (del); Cerro de Garabitas; Cirilo Martin Martin; Comandante Franco; Comandante Franco; Comandante Zorita; Conde Vallellano; Crucero Baleares; Defensores del Alcazar; Defensores del Alcazar; Dieciocho de Julio; Diego Salas Pombo; Division Azul; Doctor Vallejo-Nagera; Eduardo Aunos; Ejercito Espanol; El Algabeno; Emilio Jimenez Millas; Falange Espanola; Federico Mayo; Federico Servet; Fernandez Ladreda; Francisco Franco; Franco; Garcia Morato; General; General Aranda; General Asensio Cabanillas; General Cabanellas; General Cabanellas; General Davila; General Fanjul; General Franco; General Garcia de la Herranz; General Garcia Escamez; General Kirkpatrick; General Millan Astray; General Mola; General Mola (del); General Moscardo; General Munoz Grandes; General Orgaz; General

¹The full list and the reasons for the choice of each street name is available online at <https://bit.ly/37cLGgk> (accessed 26/11/2020).

Primo de Rivera; General Queipo de Llano; General Rodrigo; General Romero Basart; General Sagardia Ramos; General Saliquet; General Sanjurjo; General Varela; General Yague; Generalisimo; Generalisimo (del); Generalisimo Franco; Gobernador Carlos Ruiz; Hermanos Falco y Alvarez de Toledo; Hermanos Garcia Noblejas; Heroes del Alcazar; Jose Antonio; Jose Antonio (de); Jose Antonio Giron; Jose Antonio Giron; Jose Antonio Primo de Rivera; Jose Luis de Arrese; Jose Maria Peman; Juan Pujol; Juan Vigon; Lepanto; Los Martires; Manuel Sarrion; Martires; Martires (los); Matias Montero; Millan Astray; Munoz Grandes; Onesimo Redondo; Pilar Primo de Rivera; Primero de Octubre; Primo de Rivera; Puerto de los Leones; Queipo de Llano; Ramiro Ledesma; Ramon Franco; Ruiz de Alda; Salas Pombo; Veintiocho de Marzo

A2 Descriptives

Table A1 shows the summary statistics for the sample included in the main DiD analyses. Figure A1 shows a map of the municipalities included in these analyses, excluding municipalities where Vox did not participate in 2016. Figure A2 shows a map of all the municipalities that still had Francoist street names in June 2016, that is, the full sample used included in the robustness checks for PP and PSOE.

Table A1: Summary statistics for the covariates

| Variable | Min | Q1 | Median | Mean | Q3 | Max |
|--------------------------------------|------|------|--------|------|------|-------|
| Vox April 2019 | 0 | 0.09 | 0.12 | 0.13 | 0.16 | 0.41 |
| Vox June 2016 | 0 | 0 | 0 | 0 | 0 | 0.05 |
| PP April 2019 | 0.03 | 0.18 | 0.23 | 0.25 | 0.3 | 0.77 |
| PP June 2016 | 0.07 | 0.34 | 0.41 | 0.42 | 0.5 | 0.94 |
| PSOE April 2019 | 0 | 0.26 | 0.32 | 0.33 | 0.4 | 0.68 |
| PSOE June 2016 | 0 | 0.21 | 0.27 | 0.29 | 0.36 | 0.64 |
| Francoist st name removal, 2016-2018 | 0 | 0 | 0 | 0.35 | 1 | 1 |
| Log. Francoist streets, June 2016 | 0.69 | 0.69 | 0.69 | 0.98 | 1.1 | 4.11 |
| Turnout April 2019 | 0.44 | 0.74 | 0.77 | 0.77 | 0.81 | 0.97 |
| Turnout June 2016 | 0.5 | 0.7 | 0.73 | 0.73 | 0.77 | 1 |
| Log. Population 2011 | 2.83 | 6.25 | 7.63 | 7.74 | 9.19 | 14.98 |
| Leftist mayor 2015 | 0 | 0 | 0 | 0.49 | 1 | 1 |
| Unemployment 2016 | 0 | 0.06 | 0.08 | 0.08 | 0.11 | 0.21 |

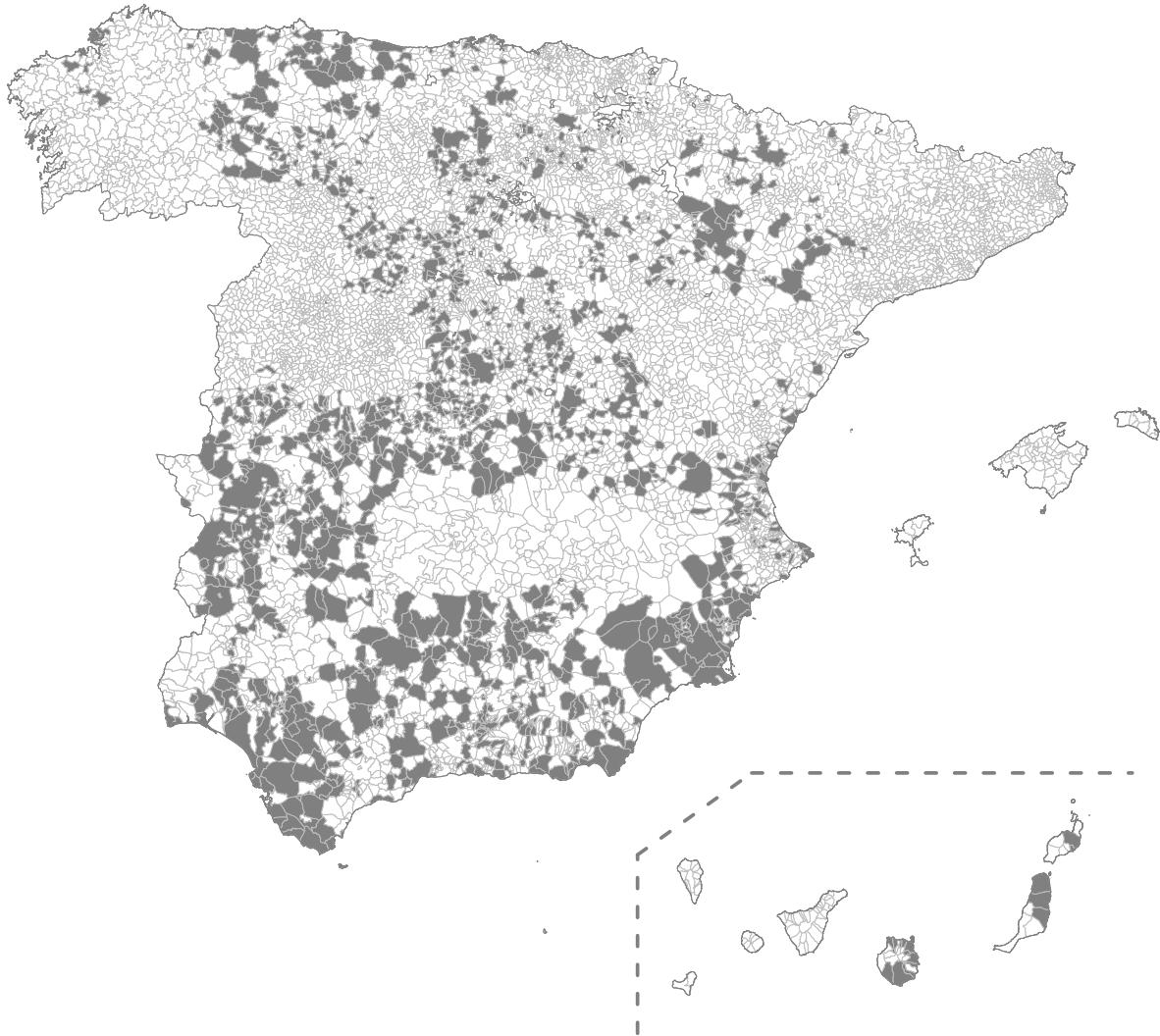


Figure A1: Municipalities included in the main DiD analyses in grey

Note: Excluding municipalities where Vox did not participate in 2016 elections.



Figure A2: Municipalities included in the DiD analyses with full sample (PP and PSOE) in grey

Note: Including municipalities where Vox did not participate in 2016 elections.

A3 DiD sample and treatment strength

Figure A3 shows the treatment strength (i.e. the number of Francoist name removals) depending on the number of streets with Francoist names in June 2016. Because of scale problems, the city of Madrid was removed from the graph, even though it follows a similar pattern: Madrid had 60 streets with Francoist names in mid 2016, and removed 52 of those during the period. The graph shows that most streets had very few streets in 2016 and removed those (usually 1 or 2), while a small subset had more streets and removed either all or part of them.

Figure A4 shows the distribution of remaining streets with Francoist names on January 1st, 2019, among those municipalities that were classified as treated in the analyses. Most municipalities that were treated between mid 2016 and late 2018 removed all their streets with Francoist names, and only a small minority retained a small number of Francoist streets (mostly one or two).

In many cases, differences in treatment strength—and the fact that there were remaining Francoist streets names after this period—is due to the fact that the list of Francoist names we use (list in previous section A1) is very comprehensive: many municipalities likely removed the most famous and relevant Francoist names, which arguably were the ones most likely to produce some kind of effect on local political preferences.

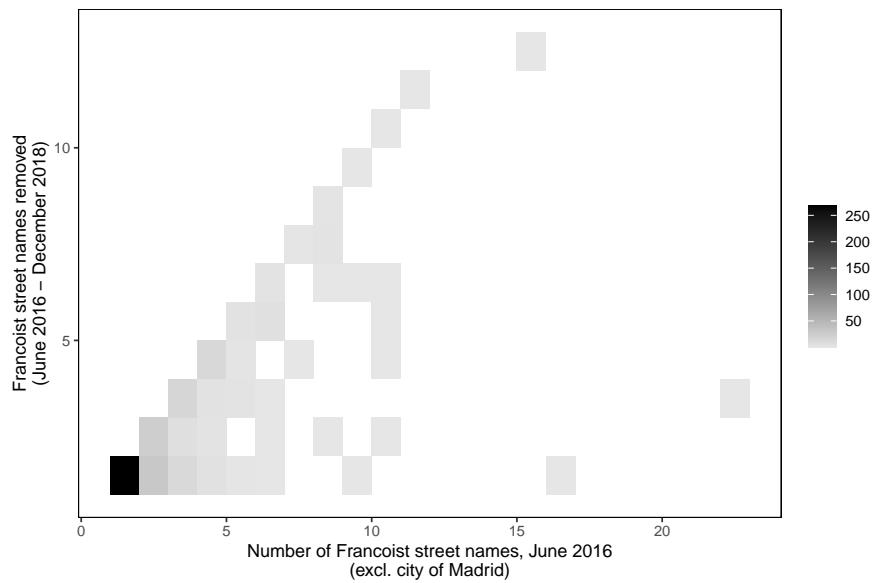


Figure A3: Treatment strength among the treated

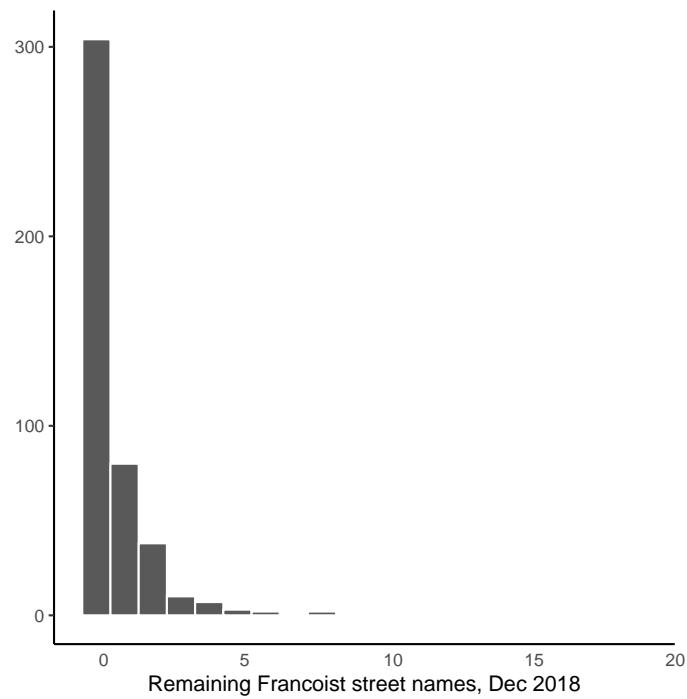


Figure A4: Remaining Francoist streets on treated municipalities 'after treatment'

A4 Descriptives on Francoist street name removals

Figure A5 shows the number of Francoist street name removals by province in three different time periods: 2001–2020, 2011–2016, and 2016–2018. Figure A6 shows the share of Francoist street by province at three different points in time: June 2001, January 2010, and June 2016. A quick look shows that provinces that removed more Francoist streets during the whole available period are similar to those that removed more Francoist names between 2016 and 2019, which are also provinces that had a higher share of Francoist streets in 2001. These are mostly provinces in central Spain, where Francoist streets were not removed earlier on either because of inertia or ideological opposition, as discussed in the main text.

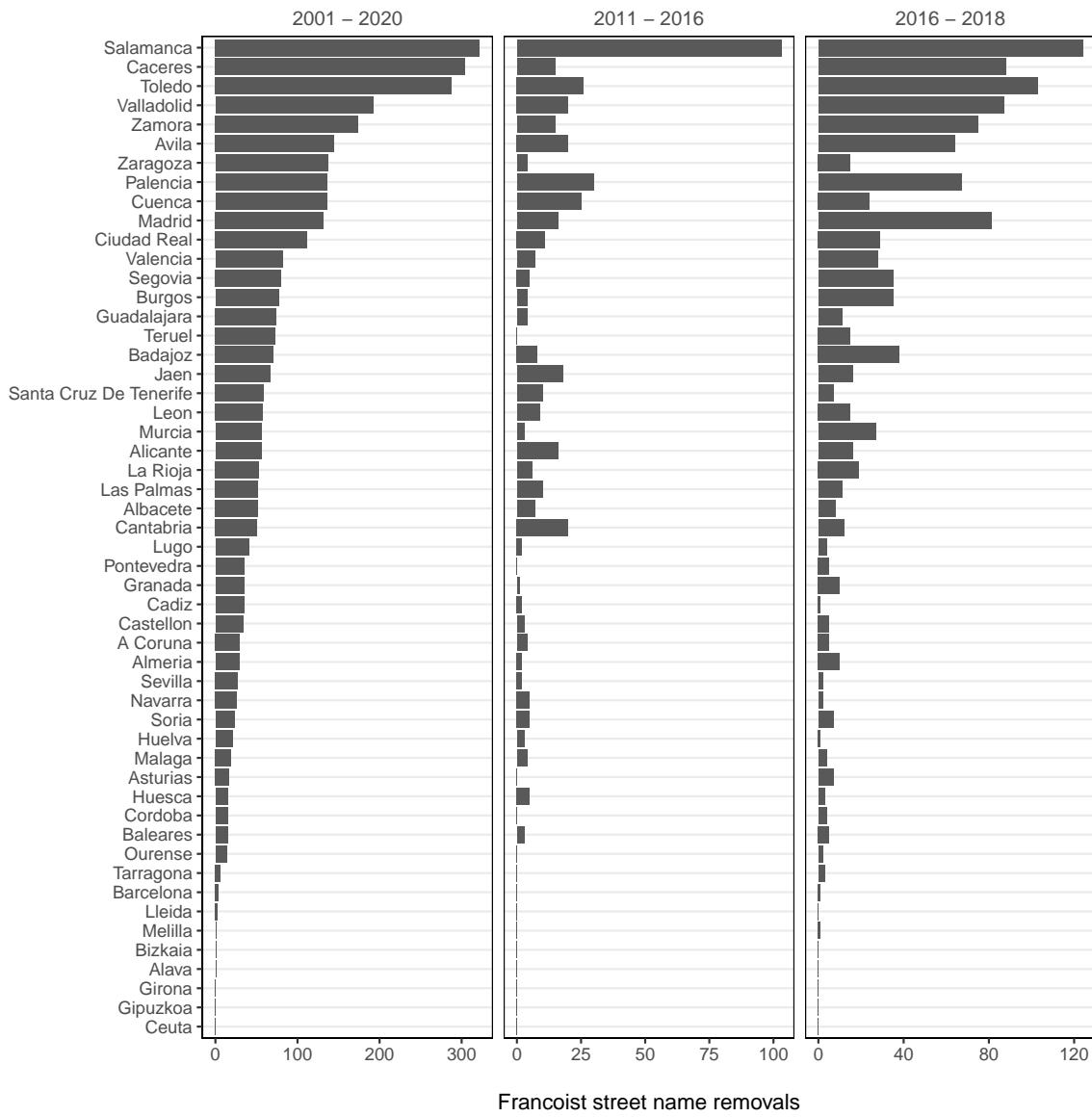


Figure A5: Number of Francoist street name removals over time

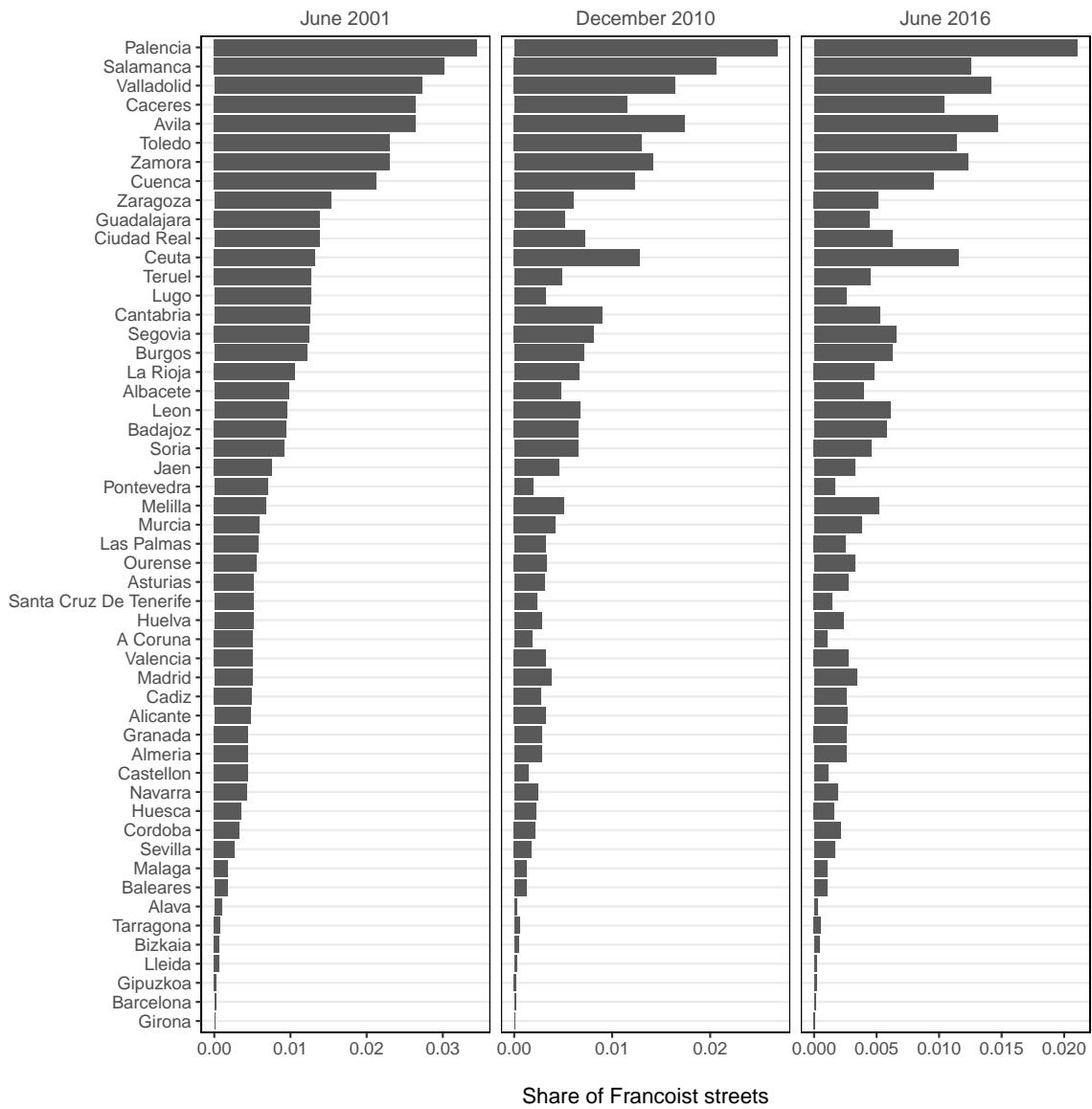


Figure A6: Share of Francoist streets in each province

A5 Comparing treated vs control and sample vs out-of-sample

One of the main concerns of the main analyses is that treated and control municipalities in the difference-in-differences analyses might not be comparable. To assess this concern empirically, table A2 shows the results of regressing a binary indicator of Francoist street name removal between 2016 and 2018 (the period covered in the DiD analyses in the main text) on a set of explanatory variable. The sample only includes those municipalities that still had Francoist streets in June 2016.

Table A2: Logit regression on Francoist street name removal (2016–2018)

| | (1) | (2) | (3) |
|--------------------------------------|----------------------|----------------------|----------------------|
| (Intercept) | 0.326*** (0.044) | 0.150* (0.062) | -0.289 (0.206) |
| Leftist mayor 2015 | -0.008 (0.021) | 0.021 (0.022) | 0.024 (0.026) |
| Log. Population 2011 | -0.051*** (0.005) | -0.038*** (0.006) | -0.030*** (0.008) |
| Log. No. Francoist streets June 2016 | 0.339*** (0.023) | 0.328*** (0.024) | 0.342*** (0.027) |
| PP support, June 2016 | | | 0.159 (0.130) |
| Vox support, June 2016 | | | -2.861 (3.558) |
| Turnout, June 2016 | | | 0.438+ (0.229) |
| CCAA Fixed Effects | No | Yes | Yes |
| Observations | 1,636 | 1,636 | 1,167 |
| Log Likelihood | -867.939 | -841.697 | -523.509 |
| Akaike Inf. Crit. | 1,743.879 | 1,727.394 | 1,091.019 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Only including municipalities that had at least one street with Francoist names in June 2016.

The picture that emerges from these analyses is that mainly smaller municipalities with a high number of Francoist streets at the beginning of the period were the ones were more likely to remove Francoist street names. Interestingly, neither the

election of a leftist mayor in 2015 nor electoral support for Vox and PP in June 2016 elections show any significant relationship with being assigned into treatment.

As depicted in figures [A5](#) and [A6](#), these municipalities were located mostly in the center of Spain.

The core idea of the selection bias is that the sample, because of still having Francoist street names as late as 2016, should be relatively more rightist than the overall sample of Spanish municipalities. Table [A3](#) shows the results of t-tests between municipalities in and out of the sample (i.e. having any Francoist street name in June 2016) on electoral share for PP, PSOE, and Vox in all elections between 2011 and 2019. Interestingly, the data shows that although support for rightist parties was stronger among municipalities that still had Francoist street names in June 2016, support for the center-left PSOE was higher as well. This might be due to the fact that the sample is more likely to include municipalities in the central regions in Spain compared to peripheral regions (i.e., Catalonia and the Basque Country), where the main two parties (PP and PSOE) have on average less support.

Table [A4](#) shows results of logistic regression of electoral support for PP and PSOE on being in the sample (having Francoist street names in June 2016), including CCAA fixed effects and controlling for population. In this case, the results are much more clear: municipalities in the sample show higher levels of electoral support for the right-wing PP.

Going further back in time, table [A5](#) and table [A6](#) repeat these analyses but distinguishing between municipalities that had or did not have Francoist street names in June 2001, the earliest point in time for which we have available data. Moreover, we use data on all elections since 2000. Again, the same patterns emerge. Municipalities that had Francoist street names in later periods were more, on average, more rightist, or at least displayed stronger support for the PP.

Table A3: Mean comparison municipalities in/out of sample (with/without Fran-coist street names in June 2016)

| Party | In sample | Out of sample | Diff | P-value |
|---------------|-----------|---------------|------|----------|
| April 2019 | | | | |
| PP | 26.72% | 23.95% | 2.77 | 0.000*** |
| PSOE | 31.72% | 28.04% | 3.68 | 0.000*** |
| VOX | 12.31% | 9.33% | 2.97 | 0.000*** |
| June 2016 | | | | |
| PP | 44.42% | 38.49% | 5.94 | 0.000*** |
| PSOE | 27.21% | 23.13% | 4.08 | 0.000*** |
| VOX | 0.21% | 0.2% | 0.01 | 0.650 |
| December 2015 | | | | |
| PP | 40.34% | 35.26% | 5.08 | 0.000*** |
| PSOE | 27.86% | 23.26% | 4.6 | 0.000*** |
| VOX | 0.23% | 0.22% | 0 | 0.796 |
| November 2011 | | | | |
| PP | 54.87% | 47.07% | 7.8 | 0.000*** |
| PSOE | 31.23% | 28.01% | 3.23 | 0.000*** |

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table A4: Voting for PP/PSOE and having a Francoist street name in June 2016

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| (Intercept) | -0.208*** (0.048) | -0.183*** (0.049) | -0.179*** (0.049) | -0.246*** (0.048) | -0.268*** (0.042) | -0.248*** (0.044) |
| PP (2000/03) | 0.126* (0.052) | | | | | |
| PSOE (2000/03) | -0.149** (0.053) | | | | | |
| PP (2004/03) | | 0.128* (0.054) | | | | |
| PSOE (2004/03) | | -0.200*** (0.055) | | | | |
| PP (2008/03) | | | 0.131* (0.056) | | | |
| PSOE (2008/03) | | | -0.197*** (0.055) | | | |
| PP (2011/11) | | | | 0.212*** (0.051) | | |
| PSOE (2011/11) | | | | -0.157** (0.056) | | |
| PP (2015/12) | | | | | 0.263*** (0.045) | |
| PSOE (2015/12) | | | | | -0.138** (0.054) | |
| PP (2016/06) | | | | | | 0.237*** (0.046) |
| PSOE (2016/06) | | | | | | -0.175** (0.057) |
| Log. Pop 2011 | 0.073*** (0.003) | 0.076*** (0.003) | 0.074*** (0.003) | 0.072*** (0.003) | 0.075*** (0.003) | 0.074*** (0.003) |
| CCAA Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 7,593 | 7,890 | 7,893 | 7,897 | 7,897 | 7,897 |
| Akaike Inf. Crit. | 6,625.822 | 6,839.057 | 6,837.529 | 6,829.387 | 6,830.442 | 6,827.124 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table A5: Mean comparison municipalities with/without Francoist street names in June 2001

| Party | In sample | Out of sample | Diff | P-value |
|---------------|-----------|---------------|------|----------|
| April 2019 | | | | |
| PP | 27.23% | 23.47% | 3.75 | 0.000*** |
| PSOE | 31.53% | 27.75% | 3.77 | 0.000*** |
| VOX | 12.22% | 9.08% | 3.15 | 0.000*** |
| June 2016 | | | | |
| PP | 44.85% | 37.74% | 7.11 | 0.000*** |
| PSOE | 26.9% | 22.86% | 4.04 | 0.000*** |
| VOX | 0.21% | 0.2% | 0.02 | 0.278 |
| December 2015 | | | | |
| PP | 40.85% | 34.57% | 6.28 | 0.000*** |
| PSOE | 27.5% | 22.95% | 4.55 | 0.000*** |
| VOX | 0.24% | 0.22% | 0.02 | 0.260 |
| November 2011 | | | | |
| PP | 55.17% | 46.2% | 8.96 | 0.000*** |
| PSOE | 31% | 27.78% | 3.21 | 0.000*** |
| March 2008 | | | | |
| PP | 48.65% | 41.07% | 7.58 | 0.000*** |
| PSOE | 42.99% | 39.63% | 3.37 | 0.000*** |
| March 2004 | | | | |
| PP | 48.49% | 41.57% | 6.92 | 0.000*** |
| PSOE | 42.09% | 36.68% | 5.41 | 0.000*** |
| March 2000 | | | | |
| PP | 53.18% | 46.81% | 6.37 | 0.000*** |
| PSOE | 36.21% | 31.46% | 4.74 | 0.000*** |

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table A6: Voting for PP/PSOE and having a Francoist street name in June 2001

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| (Intercept) | -0.269*** (0.052) | -0.252*** (0.053) | -0.231*** (0.054) | -0.338*** (0.053) | -0.328*** (0.047) | -0.305*** (0.048) |
| PP (2000/03) | 0.234*** (0.056) | | | | | |
| PSOE (2000/03) | -0.083 (0.058) | | | | | |
| PP (2004/03) | | 0.239*** (0.059) | | | | |
| PSOE (2004/03) | | -0.125* (0.061) | | | | |
| PP (2008/03) | | | 0.205*** (0.061) | | | |
| PSOE (2008/03) | | | -0.126* (0.061) | | | |
| PP (2011/11) | | | | 0.340*** (0.056) | | |
| PSOE (2011/11) | | | | -0.047 (0.062) | | |
| PP (2015/12) | | | | | 0.358*** (0.050) | |
| PSOE (2015/12) | | | | | -0.066 (0.059) | |
| PP (2016/06) | | | | | | 0.327*** (0.051) |
| PSOE (2016/06) | | | | | | -0.105+ (0.063) |
| Log. Pop 2011 | 0.078*** (0.003) | 0.081*** (0.003) | 0.079*** (0.003) | 0.077*** (0.003) | 0.082*** (0.003) | 0.080*** (0.003) |
| CCAA Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 7,593 | 7,890 | 7,893 | 7,897 | 7,897 | 7,897 |
| Akaike Inf. Crit. | 8,001.884 | 8,353.067 | 8,365.240 | 8,343.314 | 8,342.123 | 8,342.252 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

A6 Cross-sectional analysis

Table A7 shows the basic cross-sectional results, using both binary and continuous versions of the main independent variable, which tracks the removal of Francoist street names for since the oldest data available (June 2001) to December 2018. Table A8 shows the results of cross-sectional analyses similar to the ones in the previous table but using the change in support for Vox between April and November 2019 as the dependent variable. These results that any effect of the removal of Francoist streets took place between the April 2019 elections.

Table A7: Francoist street name removal and electoral support for Vox

| | Apr 2019 (1) | Nov 2019 (2) | Apr 2019 (3) | Nov 2019 (4) |
|---|---------------------|----------------------|---------------------|----------------------|
| (Intercept) | 0.120*** (0.018) | 0.213*** (0.020) | 0.119*** (0.018) | 0.211*** (0.020) |
| Francoist street name removal (log. no) | 0.003+ (0.002) | 0.005** (0.002) | | |
| Francoist street name removal (dummy) | | | 0.005* (0.002) | 0.008** (0.003) |
| Unemployment 2019 | 0.042 (0.047) | 0.139* (0.058) | 0.043 (0.047) | 0.141* (0.058) |
| Turnout April 2019 | -0.020 (0.020) | | -0.020 (0.020) | |
| Turnout Nov 2019 | | -0.086*** (0.023) | | -0.086*** (0.023) |
| Log. Population | 0.001+ (0.001) | 0.003*** (0.001) | 0.002* (0.001) | 0.003*** (0.001) |
| CCAA Fixed Effects | Yes | Yes | Yes | Yes |
| Observations | 2,164 | 2,165 | 2,164 | 2,165 |
| R ² | 0.291 | 0.317 | 0.292 | 0.318 |
| Adjusted R ² | 0.283 | 0.310 | 0.284 | 0.311 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. The main independent variable refers to the removal of Francoist street names between June 2001 and December 2018. Models 3 and 4 only include municipalities that had Francoist street names in June 2001.

Table A8: Francoist street name removal and change in electoral support for Vox during 2019

| | Full sample | Limited sample |
|-------------------------------|----------------------|----------------------|
| | (1) | (2) |
| (Intercept) | 2.195*** (0.119) | 2.362*** (0.156) |
| Francoist street name removal | -0.015 (0.020) | 0.003 (0.019) |
| Unemployment 2019 | 0.518 (0.337) | 0.450 (0.404) |
| Turnout April 2019 | -0.623*** (0.133) | -0.799*** (0.178) |
| Turnout Nov 2019 | -0.009+ (0.005) | -0.018** (0.006) |
| CCAA Fixed Effects | Yes | Yes |
| Observations | 7,552 | 2,153 |
| R ² | 0.078 | 0.134 |
| Adjusted R ² | 0.075 | 0.125 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

The main independent variable refers to the removal of Francoist street names between June 2001 and December 2018. The limited sample corresponds to municipalities that had Francoist street names in June 2001.

Tables A9 and A10 replicate the analyses in the main text—plus the model using the change between April and November as dependent variable—using as independent variable the removal of Francoist streets between 2011 and 2018, using the full and limited samples, respectively. Results point in the same direction as the cross-sectional models in the main text, that is, the removal of Francoist street names is correlated with the increase in support for Vox between 2016 and 2019.

Table A9: Electoral support for Vox and Francoist street name removal (2011–2018)

| | Apr 2019 (1) | Nov 2019 (2) | Change (3) |
|-------------------------------|---------------------|----------------------|----------------------|
| (Intercept) | 0.078*** (0.009) | 0.145*** (0.010) | 2.197*** (0.119) |
| Francoist street name removal | 0.010*** (0.002) | 0.013*** (0.002) | -0.011 (0.026) |
| Unemployment 2019 | 0.083*** (0.025) | 0.195*** (0.031) | 0.517 (0.337) |
| Turnout April 2019 | 0.005 (0.010) | | -0.623*** (0.133) |
| Turnout Nov 2019 | | -0.037*** (0.011) | |
| Log. Population | 0.003*** (0.000) | 0.006*** (0.000) | -0.009+ (0.005) |
| CCAA Fixed Effects | Yes | Yes | Yes |
| Observations | 7,819 | 7,820 | 7,552 |
| R ² | 0.441 | 0.499 | 0.078 |
| Adjusted R ² | 0.440 | 0.497 | 0.075 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. The main independent variable refers to the removal of Francoist street names between December 2010 and December 2018.

Finally, for comparison, table A11 repeats the cross-sectional analyses but including the main independent variable (the removal of Francoist street names) for different periods, using support for Vox as our dependent variable. In particular, we include street name removals between 2001 and 2015 (*before* our study period), 2001 and 2018 (full period), 2011 and 2018, and 2016 and 2018 (same period as in the main analyses). We only include municipalities that had Francoist street names at

Table A10: Electoral support for Vox and Francoist street name removal (2011–2018), limited sample

| | Apr 2019 (1) | Nov 2019 (2) | Change (3) |
|-------------------------------|---------------------|----------------------|----------------------|
| (Intercept) | 0.115*** (0.020) | 0.218*** (0.022) | 2.476*** (0.174) |
| Francoist street name removal | 0.006* (0.002) | 0.007* (0.003) | -0.012 (0.022) |
| Unemployment 2019 | 0.002 (0.051) | 0.097 (0.062) | 0.381 (0.443) |
| Turnout April 2019 | -0.012 (0.023) | | -0.901*** (0.200) |
| Turnout Nov 2019 | | -0.088*** (0.025) | |
| Log. Population | 0.002* (0.001) | 0.003*** (0.001) | -0.023** (0.007) |
| CCAA Fixed Effects | Yes | Yes | Yes |
| Observations | 1,791 | 1,792 | 1,782 |
| R ² | 0.269 | 0.296 | 0.129 |
| Adjusted R ² | 0.260 | 0.287 | 0.118 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. The main independent variable refers to the removal of Francoist street names between December 2010 and December 2018. Only municipalities that had Francoist street names in December 2010 were included.

the beginning of each period. The results show that the removal of Francoist street names only has a significant correlation with support for Vox when recent name removals are included, i.e., when the independent variable includes removals in 2016 and after.

Table A11: Electoral support for Vox in 2019 and Francoist street name removal across different periods

| | 2001-2015 | 2001-2018 | 2011-2018 | 2016-2018 |
|-------------------------------|---------------------|---------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) |
| (Intercept) | 0.120*** (0.018) | 0.119*** (0.018) | 0.115*** (0.020) | 0.118*** (0.021) |
| Francoist street name removal | 0.003 (0.002) | 0.005* (0.002) | 0.006* (0.002) | 0.007* (0.003) |
| Unemployment 2019 | 0.045 (0.047) | 0.043 (0.047) | 0.002 (0.051) | -0.031 (0.053) |
| Turnout April 2019 | -0.020 (0.021) | -0.020 (0.020) | -0.012 (0.023) | -0.020 (0.024) |
| Log. Population | 0.001+ (0.001) | 0.002* (0.001) | 0.002* (0.001) | 0.003** (0.001) |
| CCAA Fixed Effects | Yes | Yes | Yes | Yes |
| Observations | 2,164 | 2,164 | 1,791 | 1,611 |
| R ² | 0.290 | 0.292 | 0.269 | 0.264 |
| Adjusted R ² | 0.283 | 0.284 | 0.260 | 0.254 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. The main independent variable refers to the removal of Francoist street names in different periods: 1) June 2001 - December 2015, 2) June 2001 - December 2018, 3) December 2010 - December 2018, and 4) June 2016 - December 2018. Only municipalities that had Francoist street names at the beginning of each period were included.

A7 Robustness tests (difference-in-differences)

Table A12 shows the robustness tests for the DiD analyses using electoral support for Vox as the dependent variable, while tables A13 and A14 do the same but using PP and PSOE share, respectively, as the dependent variable. All models in these tables include elections before June 2016: December 2015 in the case of Vox, and all elections since March 2000 for PP and PSOE. Model 2 extends the dependent variable to the first half of 2019, accounting for potential delays in the registration of name changes that could have affected electoral support in April 2019. Model 3 uses the independent variable in continuous form, namely, the logged number of street name removals. Model 4 restricts the sample to municipalities where Vox got more than 0 votes in 2016 elections, to account for potential estimation issues.

The two main takeaways from these results is that the main result does not change across the different specifications and that the parallel trends assumption holds for the two other main parties (PP and PSOE). Even though the absence of data for Vox prior to December 2015 elections (given that the party was founded in 2014) does not allow us to do a strict test of the parallel trends assumption for Vox. In any case, the existence evidence suggests that this should not be a major concern. In the case of Vox, the pre-treatment DiD estimate (December 2015) does not show any statistical significance, while in the case of PP none of the DiD estimates between March 2000 and December 2015 in any of the models is significant either. In the PSOE models, it seems that municipalities that later removed Francoist names showed more support for the PSOE in earlier elections (November 2011 and December 2015), but this result is not robust across all specifications.

Finally, table A15 repeats the main analyses for PP and Vox using normal standard errors, heteroskedasticity-consistent standard errors, and standard errors clustered at the level of municipalities. Although levels of significance go down in the case of Vox, it still retain statistical significance and, in the case of PP, significance increases.

Table A12: Francoist street name removal and change in electoral support for Vox

| | (1) | (2) | (3) | (4) |
|---------------------------------------|-----------|-----------|-----------|-----------|
| (Intercept) | 1.999* | 1.972* | 2.012* | 4.931*** |
| | (0.953) | (0.952) | (0.953) | (1.154) |
| Francoist street name removal | -0.053 | -0.053 | -0.146 | -0.200 |
| | (0.220) | (0.215) | (0.188) | (0.252) |
| Election December 2015 | -0.105 | -0.105 | -0.112 | -0.127 |
| | (0.148) | (0.149) | (0.144) | (0.158) |
| Election April 2019 | 12.319*** | 12.305*** | 12.300*** | 12.898*** |
| | (0.142) | (0.143) | (0.138) | (0.152) |
| Francoist removal \times Dec 2015 | -0.020 | -0.015 | 0.018 | -0.043 |
| | (0.313) | (0.306) | (0.253) | (0.361) |
| Francoist removal \times April 2019 | 0.724* | 0.735* | 0.746** | 0.789* |
| | (0.299) | (0.292) | (0.244) | (0.346) |
| Controls | Yes | Yes | Yes | Yes |
| CCAA Fixed Effects | Yes | Yes | Yes | Yes |
| Observations | 3,303 | 3,303 | 3,303 | 2,259 |
| R ² | 0.803 | 0.803 | 0.803 | 0.846 |
| Adjusted R ² | 0.801 | 0.801 | 0.801 | 0.844 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All models also include elections before June 2016 (December 2015). Model 2 extends the DV (name removal) to the first half of 2019. Model 3 uses the IV in continuous form (logged number of changes). Model 4 restricts the sample to municipalities where Vox got more than 0 votes. Controls include a dummy for a leftist major elected in 2015 local elections, logged population in 2011, logged number of Francoist streets in t_0 , turnout in June 2016 elections, and the unemployment rate in January 2016. Only municipalities that had at least one street with a Francoist name in t_0 (June 2016) were included in the sample.

Table A13: Francoist street name removal and change in electoral support for PP

| | (1) | (2) | (3) | (4) |
|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| (Intercept) | 43.725*** (1.522) | 43.657*** (1.522) | 43.846*** (1.521) | 41.813*** (2.101) |
| Francoist street name removal | 0.987+ (0.511) | 0.963+ (0.501) | 0.823+ (0.436) | 0.624 (0.695) |
| Election March 2000 | 8.090*** (0.374) | 8.014*** (0.379) | 8.132*** (0.363) | 8.539*** (0.428) |
| Election March 2004 | 3.291*** (0.374) | 3.273*** (0.379) | 3.310*** (0.362) | 3.614*** (0.428) |
| Election March 2008 | 4.267*** (0.374) | 4.264*** (0.379) | 4.218*** (0.362) | 6.074*** (0.428) |
| Election November 2011 | 10.569*** (0.374) | 10.561*** (0.379) | 10.538*** (0.362) | 12.127*** (0.428) |
| Election December 2015 | -4.075*** (0.374) | -4.063*** (0.379) | -4.039*** (0.362) | -4.218*** (0.428) |
| Election April 2019 | -17.381*** (0.376) | -17.343*** (0.380) | -17.379*** (0.364) | -17.657*** (0.428) |
| Francoist removal × March 2000 | -0.105 (0.711) | 0.161 (0.697) | -0.240 (0.593) | 0.132 (0.970) |
| Francoist removal × March 2004 | 0.741 (0.711) | 0.754 (0.697) | 0.634 (0.593) | 0.674 (0.970) |
| Francoist removal × March 2008 | -0.631 (0.711) | -0.581 (0.697) | -0.430 (0.593) | -0.087 (0.970) |
| Francoist removal × Nov 2011 | -0.425 (0.711) | -0.369 (0.697) | -0.295 (0.593) | 0.040 (0.970) |
| Francoist removal × Dec 2015 | -0.007 (0.711) | -0.049 (0.697) | -0.132 (0.593) | -0.158 (0.970) |
| Francoist removal × April 2019 | -1.423* (0.712) | -1.466* (0.698) | -1.352* (0.594) | -1.781+ (0.970) |
| Controls | Yes | Yes | Yes | Yes |
| CCAA Fixed Effects | Yes | Yes | Yes | Yes |
| Observations | 11,325 | 11,325 | 11,325 | 5,502 |
| R ² | 0.684 | 0.684 | 0.683 | 0.718 |
| Adjusted R ² | 0.683 | 0.683 | 0.682 | 0.717 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All models also include elections before June 2016 (2000–2015). Model 2 extends the DV (name removal) to the first half of 2019. Model 3 uses the IV in continuous form (logged number of changes). Model 4 restricts the sample to municipalities where Vox got more than 0 votes. Controls include a dummy for a leftist major elected in 2015 local elections, logged population in 2011, logged number of Francoist streets in t_0 , turnout in June 2016 elections, and the unemployment rate in January 2016. Only municipalities that had at least one street with a Francoist name in t_0 (June 2016) were included in the sample.

Table A14: Francoist street name removal and change in electoral support for PSOE

| | (1) | (2) | (3) | (4) |
|--------------------------------|----------------------|----------------------|----------------------|-----------------------|
| (Intercept) | 42.613*** (1.440) | 42.699*** (1.441) | 42.595*** (1.440) | 46.737*** (1.970) |
| Francoist street name removal | -0.566 (0.490) | -0.788 (0.481) | -0.039 (0.415) | 0.281 (0.654) |
| Election March 2000 | 6.449*** (0.357) | 6.420*** (0.361) | 6.456*** (0.346) | 7.318*** (0.403) |
| Election March 2004 | 6.890*** (0.357) | 6.827*** (0.361) | 6.943*** (0.346) | 6.638*** (0.403) |
| Election March 2008 | -5.501*** (0.357) | -5.565*** (0.361) | -5.396*** (0.346) | -6.722*** (0.403) |
| Election November 2011 | -9.073*** (0.357) | -9.160*** (0.361) | -9.044*** (0.346) | -10.213*** (0.403) |
| Election December 2015 | -9.755*** (0.357) | -9.839*** (0.361) | -9.682*** (0.346) | -10.713*** (0.403) |
| Election April 2019 | -5.127*** (0.357) | -5.184*** (0.361) | -5.066*** (0.346) | -6.637*** (0.403) |
| Francoist removal × March 2000 | -1.025 (0.677) | -0.863 (0.664) | -0.994+ (0.563) | -1.003 (0.911) |
| Francoist removal × March 2004 | -0.476 (0.677) | -0.232 (0.664) | -0.632 (0.563) | -0.736 (0.911) |
| Francoist removal × March 2008 | 0.402 (0.677) | 0.596 (0.664) | 0.021 (0.563) | -0.208 (0.911) |
| Francoist removal × Nov 2011 | 1.121+ (0.677) | 1.344* (0.664) | 0.959+ (0.563) | 0.419 (0.911) |
| Francoist removal × Dec 2015 | 1.235+ (0.677) | 1.443* (0.664) | 0.916 (0.563) | 0.159 (0.911) |
| Francoist removal × April 2019 | 0.801 (0.677) | 0.946 (0.664) | 0.551 (0.563) | 0.140 (0.911) |
| Controls | Yes | Yes | Yes | Yes |
| CCAA Fixed Effects | Yes | Yes | Yes | Yes |
| Observations | 11,300 | 11,300 | 11,300 | 5,493 |
| R ² | 0.572 | 0.572 | 0.572 | 0.671 |
| Adjusted R ² | 0.570 | 0.570 | 0.570 | 0.669 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All models also include elections before June 2016 (2000–2015). Model 2 extends the DV (name removal) to the first half of 2019. Model 3 uses the IV in continuous form (logged number of changes). Model 4 restricts the sample to municipalities where Vox got more than 0 votes. Controls include a dummy for a leftist major elected in 2015 local elections, logged population in 2011, logged number of Francoist streets in t_0 , turnout in June 2016 elections, and the unemployment rate in January 2016. Only municipalities that had at least one street with a Francoist name in t_0 (June 2016) were included in the sample.

Table A15: Main models using conventional, robust or clustered SE

| | VOX (1) | PP (2) | VOX Het. Robust SE (3) | PP (4) | VOX Clustered SE (5) | PP (6) |
|---------------------------|----------------------|-----------------------|------------------------------|-----------------------|----------------------------|-----------------------|
| (Intercept) | 2.748* (1.337) | 46.305*** (2.932) | 2.748* (1.367) | 46.305*** (3.375) | 2.748* (1.334) | 46.305*** (4.502) |
| Francoist st name removal | -0.098 (0.262) | 1.257* (0.574) | -0.098 (0.130) | 1.257* (0.628) | -0.098 (0.130) | 1.257+ (0.659) |
| Election April 2019 | 12.319*** (0.167) | -17.350*** (0.366) | 12.319*** (0.159) | -17.350*** (0.361) | 12.319*** (0.171) | -17.350*** (0.188) |
| Removal × April 2019 | 0.724* (0.351) | -1.731* (0.769) | 0.724+ (0.381) | -1.731* (0.777) | 0.724+ (0.403) | -1.731*** (0.431) |
| CCAA Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 2,310 | 2,310 | 2,310 | 2,310 | 2,310 | 2,310 |
| R ² | 0.769 | 0.705 | 0.769 | 0.705 | 0.769 | 0.705 |
| Adjusted R ² | 0.767 | 0.702 | 0.767 | 0.702 | 0.767 | 0.702 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Clustered SE at the level of municipalities.

A8 First-difference models

Tables A16 and A17 show first-difference models on the change in electoral support for Vox and PP, respectively, across the three most recent electoral periods and the ones in which Vox participated: between December 2015 and June 2016, June 2016 to April 2019, and April 2019 to November 2019. The results are coherent with the main findings: we only find a significant relationship between the removal of Francoist street names and change in electoral support during the 2016–2019 period, which is positive for Vox (and similar to the main DiD estimate) and negative for PP, even though it only reaches a 90% level of significant in the latter case.

Table A16: First differences model on change in support for Vox

| | 2015-2016 | 2016-2019 | 2019-2019 |
|-------------------------------|-------------------|---------------------|---------------------|
| | (1) | (2) | (3) |
| (Intercept) | -0.000 (0.000) | 0.122*** (0.003) | 0.072*** (0.002) |
| Francoist street name removal | -0.000 (0.000) | 0.007* (0.003) | 0.001 (0.002) |
| CCAA Fixed Effects | Yes | Yes | Yes |
| Observations | 1,001 | 1,169 | 1,638 |
| R ² | 0.008 | 0.211 | 0.158 |
| Adjusted R ² | -0.005 | 0.200 | 0.148 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. The dependent variable refers to the change in support for Vox ($t_1 - t_0$) in each of the three periods. Only municipalities that had at least one street with a Francoist name in t_0 (June 2016) were included in the sample.

Table A17: First differences model on change in support for PP

| | 2015-2016 | 2016-2019 | 2019-2019 |
|-------------------------------|---------------------|--------------------------------|---------------------|
| | (1) | (2) | (3) |
| (Intercept) | 0.037*** (0.002) | -0.146*** (0.003) | 0.022*** (0.002) |
| Francoist street name removal | -0.001 (0.002) | -0.006 ⁺ (0.003) | 0.001 (0.002) |
| CCAA Fixed Effects | Yes | Yes | Yes |
| Observations | 1,638 | 1,619 | 1,619 |
| R ² | 0.049 | 0.179 | 0.058 |
| Adjusted R ² | 0.038 | 0.170 | 0.047 |

Note: + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. The dependent variable refers to the change in support for PP ($t_1 - t_0$) in each of the three periods. Only municipalities that had at least one street with a Francoist name in t_0 (June 2016) were included in the sample.

A9 Timeline of elections in Spain

Table A18: Elections for the Congress of Deputies in Spain

| Date | Most voted party | Share |
|----------------------------|------------------|-------|
| June 1977 ¹ | UCD | 34.4% |
| March 1979 | UCD | 34.8% |
| October 1982 | PSOE | 48.1% |
| June 1986 | PSOE | 44.1% |
| October 1989 | PSOE | 39.6% |
| June 1993 | PSOE | 38.8% |
| March 1996 | PP | 38.8% |
| March 2000 | PP | 44.5% |
| March 2004 | PSOE | 32.6% |
| March 2008 | PSOE | 43.9% |
| November 2011 | PP | 44.6% |
| December 2015 | PP | 28.7% |
| June 2016 ² | PP | 33.0% |
| April 2019 | PSOE | 28.7% |
| November 2019 ² | PSOE | 28.0% |

¹ First free elections since the 1930s, electing the Constituent Cortes that would draft a new constitution.

² Elections held after failure in government formation.